

Amendment Under 37 C.F.R. §1.111 February 27, 2003

farming an upper electrode of the capacitor on the oxide dielectric film;

forming a second insulating film for covering the capacitor;

forming a first opening for electrically connecting one of the couple of impurity diffusion layers and a second opening which exposes the upper electrode in the first and second insulating films, by etching a part of the second insulating film and a part of the first insulating film;

forming a metal film on the second insulating film for electrically connecting the one of the couple of impurity diffusion layers via the first opening and the upper electrode via the second opening, the metal film made of a member of the group consisting of a titanium nitride, a tungsten nitride, and titanium tungsten nitride;

forming a local interconnection covering an entire portion of the upper electrode with an area which is larger than an area where the upper electrode contacts with the oxide dielectric film in a plan view, the entire portion being with respect to a width and a length of the upper electrode, in a range which passes through the first opening and the second opening, by patterning the metal film;

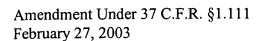
forming a third insulating film for covering the local interconnection;

forming a third opening for electrically connecting to the other of the couple of impurity diffusion layers, by etching a part of the third insulating film; and

forming a wiring electrically connecting to the other of the couple of impurity diffusion layers, the wiring composed from multi-layer films, the wiring having lower resistance than the local interconnection.

contrd

91



Sup 1, when

9. (Amended) A method of manufacturing a semiconductor device according to claim

1, wherein the oxide dielectric film is oxygen-annealed before or after the upper electrode of the capacitor is formed.

14. (Three Times Amended) A method of manufacturing a semiconductor device according to claim 1 further comprising the step of:

forming a conductive plug between the metal film and one of the couple of impurity diffusion layers in the first opening.

16. (Amended) A method of manufacturing a semiconductor device according to claim
1, wherein one of the couple of impurity diffusion layers is a component part of an MOS transistor.

21. (Four Times Amended) A method of manufacturing a semiconductor device comprising the steps of:

65

forming a couple of impurity diffusion layers in a semiconductor substrate;

forming a first insulating film covering the semiconductor substrate;

forming a lower electrode of a capacitor on the first insulating film;

forming an oxide dielectric film of the capacitor on the lower electrode;

forming an upper electrode of the capacitor on the oxide dielectric film;

U.S. Patent Application Serial No. 09/321,605

Amendment Under 37 C.F.R. §1.111 February 27, 2003

forming a second insulating film for covering the capacitor;

forming a first opening for electrically connecting one of the couple of impurity diffusion layers and a second opening which exposes the upper electrode in the first and second insulating films, by etching a part of the second insulating film and a part of the first insulating film;

forming a metal film on the second insulating film for electrically connecting the one of the couple of impurity diffusion layers via the first opening and the upper electrode via the second opening, the metal film made of a member of the group consisting of a titanium nitride, a tungsten nitride, and titanium tungstep nitride;

forming a local interconnection covering an entire portion of the upper electrode with an area which is larger than an area where the upper electrode contacts with the oxide dielectric film in a plan view, the entire portion being with respect to a width and a length of the upper electrode, in a range which passes through the first opening and the second opening, by patterning the metal film, wherein the local interconnection is a blocking layer for preventing a diffusion of a redundant to the oxide dielectric film;

forming a third insulating film for covering the local interconnection;

forming a third opening for electrically connecting to the other of the couple of impurity diffusion layers, by etching a part of the third insulating film; and

forming a wiring electrically connecting to the other of the couple of impurity diffusion layers, the wiring composed from multi-layer films, the wiring having lower resistance than the local interconnection.

Conto